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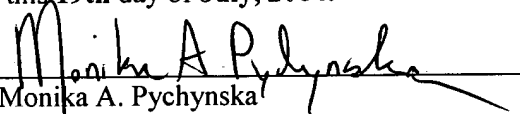
PATENT  
Attorney Docket No. VXM-001C

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICANT(S): Vitaliano *et al.*  
SERIAL NO.: 10/660,976 GROUP NO.: 1631  
FILING DATE: September 11, 2003 EXAMINER: Not yet assigned  
TITLE: Quantum Information Processing Elements and Quantum Information  
Processing Platforms Using Such Elements

**CERTIFICATE OF FIRST CLASS MAILING UNDER 37 C.F.R. 1.8**

I hereby certify that this correspondence, and any document(s) referred to as enclosed herein, is/are being deposited with the United States Postal Service as first class mail, postage prepaid, in an envelope addressed to the **Mail Stop Amendment, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450** on this 19th day of July, 2004.

  
Monika A. Pychynska

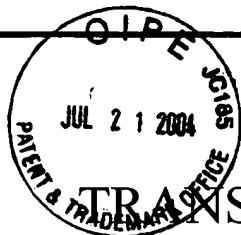
Mail Stop Amendment  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

Submitted herewith is/are:

Submitted are:

- (1) Transmittal Form (1 pg.);
- (2) Information Disclosure Statement (2 pgs.);
- (3) PTO Form-1449 (6 pgs.);
- (4) copies of references cited (C1-C95); and
- (5) a return receipt postcard.



# TRANSMITTAL FORM

|                             |                    |
|-----------------------------|--------------------|
| Application Serial Number   | 10/660,976         |
| Filing Date                 | September 11, 2003 |
| First Named Inventor        | Vitaliano          |
| Group Art Unit              | 1631               |
| Examiner Name               | Not yet assigned   |
| Attorney Docket No.         | VXM-001C           |
| BATCH NO. (after allowance) | Not applicable     |
| Patent No.                  | Not applicable     |
| Issue Date                  | Not applicable     |

## ENCLOSURES (check all that apply)

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|---|--|---|
| <input type="checkbox"/> Fee Transmittal Form<br><input type="checkbox"/> Check Attached<br><input type="checkbox"/> Copy of Fee Transmittal Form<br><input type="checkbox"/> Amendment/Response<br><input type="checkbox"/> Preliminary<br><input type="checkbox"/> After Final<br><input type="checkbox"/> Affidavits/declaration(s)<br><input type="checkbox"/> Letter to Official Draftsperson including Drawings [Total Sheets _____]<br><input type="checkbox"/> Petition for Extension of Time<br><input checked="" type="checkbox"/> Information Disclosure Statement<br><input checked="" type="checkbox"/> Form PTO-1449<br><input checked="" type="checkbox"/> Copies of IDS References (C1-C95)<br><input type="checkbox"/> Certified Copy of Priority Document(s)<br><input type="checkbox"/> Sequence Listing submission<br><input type="checkbox"/> Paper Copy/CD<br><input type="checkbox"/> Computer Readable Copy<br><input type="checkbox"/> Statement verifying identity of above | <input type="checkbox"/> Copy of Notice to File Missing Parts of Application (PTO-1553)<br><input type="checkbox"/> Formal Drawing(s)<br><input type="checkbox"/> Request For Continued Examination (RCE) Transmittal<br><input type="checkbox"/> Power of Attorney (Revocation of Prior Powers)<br><input type="checkbox"/> Terminal Disclaimer<br><input type="checkbox"/> Executed Declaration and Power of Attorney for Utility or Design Patent Application<br><input type="checkbox"/> Small Entity Statement<br><input type="checkbox"/> CD(s) for large table or computer program<br><input type="checkbox"/> Amendment After Allowance<br><input type="checkbox"/> Request for Certificate of Correction<br><input type="checkbox"/> Certificate of Correction (in duplicate) | <input type="checkbox"/> Notice of Appeal to Board of Patent Appeals and Interferences<br><input type="checkbox"/> Appeal Brief (in triplicate)<br><input type="checkbox"/> Status Inquiry<br><input checked="" type="checkbox"/> Return Receipt Postcard<br><input checked="" type="checkbox"/> Certificate of First Class Mailing under 37 C.F.R. 1.8<br><input type="checkbox"/> Certificate of Facsimile Transmission under 37 C.F.R. 1.8<br><input type="checkbox"/> Additional Enclosure(s) (please identify below) |
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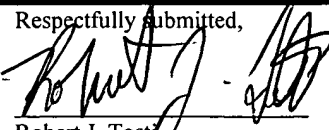
## CORRESPONDENCE ADDRESS

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Date: July 19, 2004  
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PATENT  
Attorney Docket No. VXM-001C

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

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Commissioner for Patents  
P.O. Box 1450  
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INFORMATION DISCLOSURE STATEMENT

Sir:

In accordance with the provisions of 37 C.F.R. 1.97 and 1.98, Applicants hereby make of record the patents and publications listed on the accompanying Form PTO-1449, and other information contained herein, for consideration by the Examiner in connection with the examination of the above-identified patent application. In accordance with the U.S. Patent Office's partial waiver of the requirement under 37 C.F.R. 1.98(a)(2)(i), only copies of the foreign patent documents and non-patent publications are enclosed.

REMARKS

In accordance with the provisions of 37 C.F.R. 1.97, this statement is being filed (CHECK ONE):

- ☒ (1) within three (3) months of the **filing date** of a national application other than a continued prosecution application under 37 C.F.R. 1.53(d), or within three (3) months of the **date of entry of the national stage** as set forth in 37 C.F.R. 1.491 in an international application, or before the mailing of the **first Office action** on the merits, or before the mailing of a **first Office action** after the filing of a request for continued examination under 37 C.F.R. 1.114; or
- ☐ (2) after the period defined in (1) but before the mailing date of a **final action** or a **notice of allowance** under 37 C.F.R. 1.311, and
- ☐ the requisite Statement is below, **OR**

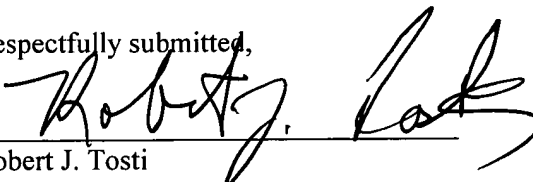
- ☐ the requisite fee under 37 C.F.R. 1.17(p), namely **\$180.00**, is included herein, or
- ☐ (3) after the mailing date of a **final action** or **notice of allowance** but before the payment of the **issue fee**, **AND**
- ☐ the requisite Statement is below, **AND**
- ☐ the requisite petition fee under 37 C.F.R. 1.17(p), namely **\$180.00** is included herein.

It is respectfully requested that each of the patents and publications listed on the attached Form PTO-1449, and other information contained herein, be made of record in this application.

Date: July 19, 2004  
Reg. No. 35,393

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Respectfully submitted,

  
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| <b>FORM PTO - 1449</b><br><br><b>INFORMATION DISCLOSURE STATEMENT</b> | <b>ATTORNEY DOCKET NO.:</b> VXM-001C<br><br><b>APPLICANT(S):</b> Vitaliano et al.<br><br><b>SERIAL NO.:</b> 10/660,976<br><br><b>FILING DATE:</b> September 11, 2003 <b>GROUP:</b> 1631 |
|---|---|

**U.S. PATENT DOCUMENTS**

| EXAM. INIT. | DOCUMENT NUMBER | DATE         | NAME     | CLASS            | SUB CLASS | FILING DATE IF APPROPRIATE |
|-------------|-----------------|--------------|----------|------------------|-----------|----------------------------|
|             | A1              | 4,367,066    | 01/04/83 | Zellweger, S.    | 434       | 433                        |
|             | A2              | 4,999,842    | 3/12/91  | Huang et al.     | 372       | 45                         |
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|             | A11             | 6,472,681 B1 | 10/29/02 | Kane, B.         | 257       | 14                         |

**FOREIGN PATENT DOCUMENTS**

| EXAM. INIT. | DOCUMENT NUMBER | DATE | COUNTRY CODE | CLASS | SUB CLASS | FILING DATE | ABSTRACT ONLY | ENGLISH LANG (Y/N) |
|-------------|-----------------|------|--------------|-------|-----------|-------------|---------------|--------------------|
|             |                 |      |              |       |           |             |               |                    |
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|             |                 |      |              |       |           |             |               |                    |

**OTHER ART, JOURNAL ARTICLES, ETC.**

| EXAM. INIT. | OTHER DOCUMENTS: (Including Author, Title, Date, Relevant Pages, Place of Publication)  |
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| FORM PTO - 1449                  |     | ATTORNEY DOCKET NO.: VXM-001C  |
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|                                  |     | SERIAL NO.: 10/660,976   |
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